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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Eiji Muramatsu

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EXAMINER

CHU, KIM KWOK

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,985	<b>Applicant(s)</b> MURAMATSU ET AL.	
	<b>Examiner</b> Kim-Kwok CHU	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 6/1/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17,20-23,25-31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17,20-23,25-31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/30/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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***Continued Examination after Final Rejection***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 1, 2009 has been entered.

***Drawing Objection***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. In the drawings, the amended features "a first recordable maximum speed" and "a second recordable maximum speed" are not shown in any figure. For example, Fig. 10 only illustrates strategy information for 1X for Lo layer and L1 layer. In other words, in the management information area, Fig. 10 shows strategy information for both layers at speed such as 1X but does not show "recordable maximum speed" for first layer and second layer as required in the claims. Therefore, in each of independent Claims 17, 27 and 31, the claimed subject matter "a first recordable maximum speed" and "a second recordable

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maximum speed" must be shown or the feature canceled from the claims. No new matter should be entered.

Similarly, in each of dependent Claims 29 and 30, the amended features "a storing device in which at least (i) the first recording condition information which indicates the first optimum recording condition for the first recordable maximum speed and (ii) the second recording condition information which indicates the second optimum recording condition for the second recordable maximum speed" must be shown or the feature canceled from the claims. No new matter should be entered.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

*The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.*

4. Claims 17, 20-23, 25-31 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art

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that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In each of Claims 17, 27 and 31, the amended phrase "a first recording condition", "a second recording condition", "a first optimum recording condition", "a second optimum recording condition", "a first recording speed", "a second recording speed", "a first recordable maximum speed", "a second maximum speed" etc. are not supported in the specification. In fact, in the specification, Applicant does not disclose that there are only two situations (first and second) exist in recording condition, recording speed etc. In other words, the specification teaches more than two selection of recording conditions are recorded in the management area. For example, Fig. 6 illustrates that there are more than two 4X information stored.

The claims not specifically mentioned above are rejected because these claims are dependent on the rejected base claims.

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***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -  
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

6. Claims 17, 20-23, 25, 26 and 33 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al. (U.S. Patent 7,113,475).

Lee teaches an information recording medium having all of the elements and means as recited in claims 17, 20-23, 25, 26 and 33. For example, Lee teaches the following:

Regarding Claim 17, the information recording medium comprising a plurality of recording layers to record therein information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (Fig. 1; lead-in is a management information area; column 4, lines 1-4) to record at least (i) first recording condition information 30a, 30b (Fig. 1) which indicates a first optimum recording condition for a first

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recording layer of the plurality of recording layers (test information is obtained from a respective tested layer) when the information is recorded into the first recording layer and (ii) a second recording condition information 30a, 30b (Fig. 1) which indicates a second optimum recording condition for a second recording layer of the plurality of recording layers (test information is obtained from a respective tested layer) when the information is recorded into the second recording layer, at least (i) a first recording speed information 35 (Fig. 2; column 5, lines 10-16) which indicates a first recordable maximum speed for the first recording layers and (ii) a second recording speed information 35 which indicates a second recordable maximum speed for the second recording layer which indicates a second recordable maximum speed for the second recording layer are recorded in the management information area (Fig. 2; each layer has its maximum speed verified and recorded; column 5, lines 10-16), the first recording condition information 30a, 30b for the first recording layer is recorded in the management (lead-in) information area, correspondingly to the first recording speed information (Fig. 1; format speed is recorded in 10, and test speed is recorded in 35), the second recording condition information for the second recording layer is recorded in the management information area correspondingly

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to the second recording speed information (Fig. 1; format speed is recorded in 10, and test speed is recorded in 35), the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording condition information 35 with respect to the plurality of recording layers is collectively recorded (Figs. 3A and 3B; maximum speed is collectively recorded in b4-b7), the first and second recording condition information (test zone data) include strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

Regarding Claim 20, a table (Fig. 2) on which the first and second recording speed information and the first and second recording condition information are registered (recorded) for each of the plurality of recording layers, and which has an index (number), is recorded in the management information area (Figs. 3A and 3B).

Regarding Claim 21, identification information 10a (Fig. 1) for identifying the information recording medium is recorded in the management information area (Fig. 1).

Regarding Claim 22, the recording condition information is at least partially recorded (pre-recorded by manufacturer) from the beginning of production of the information recording medium,



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as pre-information of the information recording medium (Fig. 1; column 4, lines 5-10).

Regarding Claim 23, the first and second recording condition information 30 (Fig. 1) are at least partially recorded or updated (re-recordable), as written-once or rewritable information (Fig. 1).

Regarding Claim 25, the management information area (lead-in) is disposed in each of the recording layers (Fig. 1; each recording layer has its lead-in area).

Regarding Claim 26, the first and second recording speed information 30 is defined to indicate a higher speed (maximum) in an upper layer side out of the plurality of recording layers (Figs. 3A and 3B; one layer has a maximum speed information recorded).

Regarding Claim 33, the first and second recording condition information 30 includes optimum power information (disc test) of laser for recording (Fig. 1).

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

8. Claims 27, 28 and 31 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (U.S. Patent 7,113,475) in view of Ito et al. (U.S. Patent 7,184,377).

9. Lee teaches an information recording medium very similar to that of the present invention as recited in Clams 27 and 28.

For example, Lee teaches the following:

Regarding Claim 27, the recording medium (Fig. 1) comprising a plurality of recording layers to record therein the information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (lead-in) to record therein at least (i) first recording condition information 30 (Fig. 1) which indicates a first optimum recording condition (such as OPC under a certain disc speed) for a first recording layer of the plurality of

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recording layers when the information is recorded into the first recording layers (Figs. 3A and 3B; column 5, lines 4-16) and (ii), a second recording condition information 30 (Fig. 1) which indicates a second optimum recording condition (such as OPC under a certain disc speed) for a second recording layer of the plurality of recording layers when the information is recorded into the second recording layers (Figs. 3A and 3B; column 5, lines 4-16), at least (i) a first recording speed information 35 which indicates a first recordable maximum speed for the first recording layers (Figs. 3A and 3B); and (ii) a second recording speed information 35 which indicates a second recordable maximum speed for the second recording layers are recorded in the management information area, the first recording condition information (test zone data) 30 for the first recording layer is recorded in the management information area (lead-in), correspondingly to the first recording speed information (Fig. 1); the second recording condition information (test zone data) 30 for the second recording layer is recorded in the management information area (lead-in), correspondingly to the second recording speed information (Fig. 1); the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording

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condition information 30 with respect to the plurality of recording layers is collectively recorded (Figs. 1, 3A and 3B; maximum speed is collectively recorded in b4-b7), the first and second recording condition information (test zone data) include strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

However, Lee does not teach the following:

Regarding Claim 27, an information recording apparatus comprising a reading device for reading the recording condition information from the management information area.

Regarding to Claims 27 and 28, a recording speed setting device for setting a recording speed and the optimum recording condition corresponding to a recording target layer in which the information is to be recorded, on the basis of the read recording condition information.

Regarding Claim 27, a recording device for recording the information into the recording target layer at the set recording speed.

Ito teaches the following:

an information recording apparatus (Fig. 18) comprising a reading device 535 (column 22, lines 11 and 12) for reading the recording condition information (Fig. 5; disc information, OPC

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information related to disc speed etc.) from the management information area (lead-in) (Figs. 16 and 19; step 602);

a recording speed setting device for setting a recording speed 509 (servo circuit in Fig. 18) corresponding to a recording target layer in which the information (disc information) is to be recorded, on the basis of the read recording condition information (Fig. 19; step 602; recording speed is controlled by the servo circuit); and

a recording device 535 (Fig. 18) for recording the information (OPC/speed) into the recording target layer at the set recording speed (Fig. 18).

A lead-in area in an optical storage medium is used to store disc operating information such as disc speed as disclosed in the prior art of Lee. Although Lee does not teach an information recording apparatus operated under the information stored in the lead-in area, however, to control the operation of read/write Lee's storage medium, it would have been obvious to one of ordinary skill in the art to apply an optical information apparatus such as Ito's to read/write Lee's lead-in operating information stored in the storage medium, because the reading/recoding and speed control devices such as Ito's can access the stored disc optimum operating in the lead-in area and then operate the storage medium accordingly.

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10. Claim 31 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.

***Related Prior Art***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (7,345,970) is pertinent because Kim teaches management information containing layer number information.

Tanii et al. (7,218,585) is pertinent because Tanii teaches management information containing speed information.

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12. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627  
August 9, 2009  
(571) 272-7585

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627